

AMENDMENT TO THE CLAIMS

1. (currently amended): A head suspension assembly comprising:
a suspension portion including a suspension arm;
a head ~~portion~~ coupled to the suspension arm including a slider body having a leading edge, trailing edge and opposed sides and one or more transducer elements; and
a magnetic bearing element on the ~~slider body~~head or suspension portion to form a magnetic bearing assembly operable to induce a repulsion force to provide a fly-height for the head portion of the head suspension assembly.
2. (original): The head suspension assembly of claim 1 wherein the magnetic bearing element includes at least one bearing magnet.
3. (original): The head suspension assembly of claim 2 wherein the at least one bearing magnet includes a permanent magnet.
4. (original): The head suspension assembly of claim 2 wherein the at least one bearing magnet includes an electro-magnet.
5. (original): The head suspension assembly of claim 1 wherein the magnetic bearing element includes bearing magnets on opposed sides of either a roll axis, a pitch axis or both, of the slider body.
6. (original): The head suspension of claim 1 wherein the magnetic bearing element includes a bearing magnet proximate to a trailing edge of the slider body spaced from a pitch axis of the slider body.
7. (cancelled)

8. (currently amended): The head suspension assembly of claim 1 wherein the one or more transducer elements includes a longitudinal recording element.

9. (currently amended): The head suspension assembly of claim 1 wherein the magnetic bearing element includes a conductive element on the ~~slider body~~head or suspension portion.

10. (currently amended): A bearing assembly for a data storage device comprising:

~~a head suspension assembly including a suspension portion including a suspension arm and a head portion including a slider body having a leading edge, trailing edge and opposed sides and a transducer portion including a transducer element;~~

a data storage disc having a recording layer and a magnetic bearing element; and

a magnetic bearing element on ~~the~~a slider body or suspension portion and ~~a magnetic bearing element on the data storage disc~~ and the magnetic bearing elements on the data storage disc and the slider or suspension portion including a bearing magnet and a conductive element to provide a repulsion force between the ~~head suspension assembly~~slider or suspension portion and the data storage disc ~~to provide a fly height for the head portion of the head suspension above a disc surface.~~

11. (original): The bearing assembly of claim 10 wherein the bearing magnet is a permanent magnet.

12. (original): The bearing assembly of claim 10 wherein the bearing magnet is an electro-magnet.

13. (currently amended): The bearing assembly of claim 10 wherein the bearing magnet is formed on the slider ~~body~~ or suspension portion and the disc includes a conductive layer or substrate to form the conductive element.

14. (currently amended): The bearing assembly of claim 10 wherein the conductive element is formed on the slider ~~body~~ or the suspension portion and the bearing magnet is formed of a magnetic recording layer on the data storage disc.

15. (currently amended): The bearing assembly of claim 10 wherein the slider includes a transducer element ~~includes~~ having a longitudinal recording element.

16. (original): The bearing assembly of claim 12 including a controller coupled to the electro-magnet to selectively energize the magnetic bearing assembly.

17. (currently amended): The bearing assembly of claim 10 wherein the data storage disc includes a magnetic recording layer and recording layer ~~the bearing element on the data storage disc~~ is at the magnetic recording layer.

Claims 18-24 - (Cancelled)

25. (new): The head suspension assembly of claim 1 wherein the magnetic bearing element is on the head.

26. (new): The bearing assembly of claim 10 wherein the magnetic bearing element is on the slider.

27. (new): The bearing assembly of claim 10 wherein the magnetic bearing element on the slider or suspension portion includes an inductive coil and further comprising a detector coupled to the inductive coil to measure a voltage or current.

28. (new): The bearing assembly of claim 27 wherein the slider includes a perpendicular recording element and the magnetic bearing element of the data storage disc is a magnetic recording layer.

29. (new): The bearing assembly of claim 27 wherein the magnetic bearing element on the data storage disc is a conductive layer.

30. (new): The bearing assembly of claim 10 wherein the magnetic bearing element on the slider or suspension portion includes an electro-magnet and further comprising a controller configured to energize the electro-magnet prior to rotation of the data storage disc.

31. (new): A magnetic bearing element on a slider orientated to provide a repulsion force relative to a conductive layer of a data storage disc via rotation of the slider relative to the data storage disc.

32. (new): An assembly comprising:
 an electro-magnetic element on a slider or head
 suspension; and
 a detector coupled to the electro-magnetic element on
 the slider or head suspension configured to
 measure voltage or current to detect vibration or
 fly height.